8-16-04

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Case No. 01-1635-B)

In the Application of:	
Andy Welcher, et al	
	Examiner: N/A
Serial No.: 10/684,957	
	Group Art Unit: N/A
Filing Date: October 14, 2003	
For: Human anti-IFN-gamma Neutralizing Antibodies as Selective IFN-gamma Pathway Inhibitors	

TRANSMITTAL LETTER

Mail Stop Amendment
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In regard to the above identified application,

1. We are transmitting herewith the attached:
   a) Information Disclosure Statement;
   b) PTO Form 1449 and cited references;
   c) Return postcard

2. With respect to fees:
   a) No fees are required
   b) Please charge any underpayment or credit any overpayment our Deposit Account, No. 13-2490. A duplicate copy of this letter is enclosed.

3. CERTIFICATE OF MAILING UNDER 37 CFR § 1.10: The undersigned hereby certifies that this Transmittal Letter and the paper, as described in paragraph 1, are being deposited with the United States Postal Service with sufficient postage as Express Mail EV 333558679 US in an envelope addressed to the Commissioner for Patents, Alexandria, VA 22313-1450 on the date indicated below.

Date: August 13, 2004

Respectfully submitted,

Jason J. Derry, Ph.D.
Registration No. 50,692

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INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment
Commissioner for Patents
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 C.F.R. Section 1.97 - 1.99, the Applicant wishes to make the following references of record in the above-identified application. This Information Disclosure Statement is in compliance with the continuing duty of candor as set forth in 37 C.F.R. Section 1.56. Copies of the references cited below are enclosed. These references are also listed on the enclosed PTO Form 1449.

In the judgment of the undersigned, portions of the listed references may be material to the Examiner's consideration of the presently pending claims. This statement is not a representation that the listed references have effective dates early enough to be "prior art" within the meaning of 35 U.S.C. Section 102 or Section 103.

Applicants do not believe any fee is due with this submission. If this belief be in error and the Patent Office determines that the fee prescribed in the relevant portion of 37 C.F.R. Section 1.97 is applicable, the undersigned representative by his signature hereby authorizes any such fee to be debited from Deposit Account 13-2490.

Respectfully submitted,
McDonnell Boehnen Hulbert & Berghoff

Date: August 13, 2004

Jason J. Derry, Ph.D.
Reg. No. 50,692

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. # 01-1635-B	Serial No. # 10/684,957
		Applicant: Andy Welcher, et al	
		Filing Date: # October 14, 2003	Group: # N/A

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	1.	4,599,306	07/08/1986	Altrock			
	2.	4,727,138	02/23/1988	Goeddel et al.			
	3.	4,897,264	01/30/1990	Novick et al			
	4.	4,948,738	08/14/1990	Banchereau et al.			
	5.	5,451,658	09/19/1995	Seelig			
	6.	5,852,824	12/10/1996	Goeddel et al.			
	7.	5,632,9888	05/27/1997	Ingram et al.			
	8.	5,693,761	12/02/1997	Queen et al.			
	9.	5,763,210	06/09/1998	Novick et al.			
	10.	5,888,511	03/30/1999	Skurkovich et al.			
	11.	6,333,032	12/25/2001	Skurkovich et al.			
	12.	6,346,247	02/12/2002	Stafford et al.			
	13.	6,350,860	02/26/2002	Buyse et al			
	14.	6,558,661	05/06/2003	Ashkenazi et al.			
	15.	2002/0058033	05/16/2002	Raisch et al.			
	16.	2002/00091240	07/11/2002	Vasquez et al.			
	17.	2003/0056233	03/20/2003	Ehrhardt et al.			
	18.	2003/0059428	03/27/2003	Skurkovich et al.			

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U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	19.	2003/0228310	12/11/2003	Skurkovich et al.			
	20.	2004/0010810	01/15/2004	Kucherlapati et al.			

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	21.	DE 4213497	10/28/1993					
	22.	EP 0528469	07/03/1996					
	23.	WO88/07869	10/20/1988					
	24.	WO91/02005	02/21/1991					
	25.	WO92/06115	04/16/1992					
	26.	WO97/37679	10/16/1997					
	27.	WO99/09055	02/25/1999					
	28.	WO00/71585	11/30/2000					
	29.	WO01/54721	08/02/2001					

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

	30.	Alkan SS et al., "An Interferon-Gamma Neutralizing Monoclonal Antibody But Not Interferon-Gamma Delays The Induction of Rat Adjuvant Arthritis", Abstract, 1987 ISIR Meeting, Washington, DC, 2-6 Nov 1987, pg. 804, III-17.
	31.	Amital H et al., "Immunomodulation of murine experimental SLE-like disease by interferon-γ ", *Lupus* 1998; 7:445-454.
	32.	Bach J-F, "Immunointervention if Autoimmune Diseases From Cellular Selectivity to Autoantigen Specificity", *J Autoimmune* 1992; 5(Suppl.A):3-10.
	33.	Balasa BB et al., "Interferon γ (IFN- γ) Is Necessary for the Genesis of Acetylcholine Receptor-induced Clinical Experimental Autoimmune *Myasthenia gravis* in Mice", *J Exp Med* 1997; 186(3):385-391

EXAMINER	DATE CONSIDERED

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

	34.	Billiau A, Gamma-interferon: the match that lights the fire?", *Immunol Today* 1988; 9(2):37-40
	35.	Billiau A, "Interferons and Inflammation", *J Interferon Res* 1987; 7:559-567
	36.	Billiau A and Dijkmans R, "Commentary – Interferon- γ " Mechanism of Action and Therapeutic Potential", *Biochem Pharmacol* 1990; 40(7):1433-1439
	37.	Billiau A et al., "Enhancement of Experimental Allergic Encephalomyelitis in Mice By Antibodies Against IFN- γ ", *J Immunol* 1988; 140(5):1506-1510
	38.	Billiau A et al., "A role for the interferon system in the pathogensis of multiple sclerosis?", *J Biol Regul Homeost Agents* 1987; 1:9-22
	39.	Boissier M-C et al., " Immunotherapy of Collagen-Induced Arthritis with Monoclonal Antibody to Interferon- γ)", Abstract, 56th Annual Scientific Meeting, American College of Rheumatology, Oct. 11-15 1992, Atlanta, GA, pg. S99, A186
	40.	Boissier M-C et al., " Biphasic effect of interferon- γ in murine collagen-induced arthritis", *Eur J Immunol* 1995; 25:1184-1190
	41.	Campbell IL et al., "Essential Role for Interferon- γ and Interleukin-6 in Autoimmune Insulin-dependent Diabetes in NOD/Wehi Mice", *J Clin Invest* 1991; 87:739-742
	42.	Chothia C and Lesk AM, "Canonical Structures for the Hypervariable Regions in Immunoglobulins", *J Mol Biol* 1987; 196:901-917
	43.	Cush JJ and Kavanaugh AF, "Biologic Interventions in Rheumatoid Arthritis", *Rheumatoid Arthritis* 1995; 21(3):797-816
	44.	Dijkmans R and Billiau A, "Interferon γ : a master key in the immune system", *Curr Opin Immunol* 1988; 1:269-274
	45.	Duong TT et al., "Effect of anti-interferon- γ and anti-interleukin-2 monoclonal antibody treatment on the development of actively and passively induced experimental allergic encephalomyelitis in the SJL/J mouse", *J Neuroimmunol* 1992; 36:105-115
	46.	Espejo C et al., "Treatment with Anti-interferon- γ Monoclonal Antibodies Modifies Experimental Autoimmune Encephalomyelitis in Interferon-γ Receptor Knockout Mice", *Exp Neurol* 2001; 172:460-468
	47.	Ferber IA et al., "Mice with a Disrupted IFN- γ Gene Are Susceptible to the Induction of Experimental Autoimmune Encephalomyelitis (EAE)[1]", *J Immunol* 1996; 156:5-7

EXAMINER	DATE CONSIDERED

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Filing Date:

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

	48.	Froyen G and Billiau A, "Potential therapeutic use of antibodies directed towards HuIFN-γ", *Biotherapy* 1997; 10:49-57
	49.	Haas C et al., "IFN- γ Receptor Deletion Prevents Autoantibody Production and Glomerulonephritis in Lupus-Prone (NZB x NZW)F_1 Mice[1]", *J Immunol* 1998; 160:3713-3718
	50.	Hartung H-P et al., "The Role of Interferon-Gamma in the Pathogenesis of Experimental Autoimmune Disease of the Peripheral Nervous System", *Ann Neurol* 1990; 27:247-257
	51.	Heremans H and Billiau A, "The Potential Role of Interferons and Interferon Antagonists in Inflammatory Disease", *Drugs* 1989; 38(6):957-972
	52.	Heremans H et al., "Clinical Potential of Monoclonal Antibodies Against Gamma Interferon", *Develop Biol Standard* 1990; 71:113-119
	53.	Heremans H et al., "Interferon γ , A Mediator of Lethal Lipopolysaccharide-Induced Shwartzman-Like Shock Reactions in Mice", *J Exp Med* 1990; 171:1853-1869
	54.	Inagaki Y et al., "Interferon-γ -induced apoptosis and activation of THP-1 macrophages", *Life Sciences* 2002; 71:2499-2508
	55.	Ishida Y et al., "A pivotal involvement of IFN-γ in the pathogenesis of acetaminophen-induced acute liver injury", *FASEB J* 2002; 16:1227-1236
	56.	Jacob CO et al., "In Vivo Treatment of (NZB x $NZWF_1$ Lupus-Like Nephritis with Monoclonal Antibody to γ Interferon", *J Exp Med* 1987; 166:798-803
	57.	Jacob CO et al., "Heterogeneous Effects of IFN-γ In Adjuvant Arthritis[1]", *J Immunol* 1989; 142:1500-1505
	58.	Jones PT et al., "Replacing the complementarity-determining regions in a human antibody with those from a mouse", *Nature* 1986; 321:522-525
	59.	Kageyama Y et al., "Reduced Susceptibility to Collagen-Indiced Arthritis in Mice Deficient in IFN- γ Receptor", *J Immunol* 1998; 161:1542-1548
	60.	Landolfo S et al., "Inhibition of Interferon-Gamma May Suppress Allograft Reactivity by T Lymphocytes in Vitro and in Vivo", *Science* 1985; 229:176-179
	61.	Lukina GV et al., "Double Blind Trial of Effectiveness of Antibodies to Interferon-Gamma and Tumor Necrosis Factor Alpha in Rheumatoid Arthritis", Терапевтический архив 2001; No. 5, C. 12-15

EXAMINER	DATE CONSIDERED

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

	62.	Lukina GV et al., "New Approaches to Biological Immunomodulation therapy of Rherapy of Rheumatoid Arthritis: Neutralization of Basic Cytokines", Терапевтический архив 1998; No. 5, C. 32-37
	63.	Macdougall IC and Cooper AC, "Erythropoietin resistance: the role of inflammation and pro-inflammatory cytokines", *Nephrol Dial Transplant* 2002; 17[Suppl 11]:39-43
	64.	Mizuhara H et al., "Critical Involvement of Interferon Gamma in the Pathogenesis of T-Cell Activation – Associated Hepatitis and Regulatory Mechanisms of Interleukin-6 for the Manifestations of Hepatitis", *Hepatology* 1996; 23:1608-1615
	65.	Nagano H et al., "Coronary Arteriosclerosis after T-Cell-Mediated Injury in Transplanted Mouse Hearts", *Am J Pathol* 1998; 152:1187-1197
	66.	Nakajima H et al., "The effect of treatment with interferon-gamma on type II collagen-induced arthritis", *Clin Exp Immunol* 1990; 81:441-445
	67.	Nicoletti F et al., "Murine Concanavalin A-Induced Hepatitis Is Prevented by Interleukin 12 (IL-12) Antibody and Exacerbated by Exogenous IL-12 Through an Interferon-γ—Dependent Mechanism", *Hepatology* 2000; 32:728-733
	68.	Nicoletti A et al., "Immunoglobulin Treatment Reduces Atherosclerosis in apo E Knockout Mice", *J Clin Invest* 1998; 102:910-918
	69.	Nicoletti F et al., "Prevention of Spontaneous Autoimmune Disbetes in Disbetes-Prone BB Rats by Prophylactic Treatment with Antirat Interferon-γ Antibody", *Endocrinology* 1997; 138:281-288
	70.	Ozmen L et al., "Experimental therapy of systemic lupus erythematosus: the treatment of NZB/W mice with mouse soluble interferon-γ *receptor inhibits the onset of* glomerulonephritis*", *Eur J Immunol* 1995; 25:6-12
	71.	Panitch HS et al., "Exacerbations of Multiple Sclerosis in Patients Treated with Gamma Interferon", *Lancet* 1987 Apr 18; 893-895
	72.	Richards HB et al., "Interferon-γ is required for lupus nephritis in mice treated with the hydrocarbon oil pristine", *Kidney International* 2001; 60:2173-2180
	73.	Russell PS et al., "Coronary Atherosclerosis in Transplanted Mouse Hearts[1]", *Transplantation* 1994; 57(9):1367-1371
	74.	Seery JP, IFN-γ transgenic mice: clues to the pathogenesis of systemic lupus erythematosus?", *Arthritis Res* 2000; 2:437-440

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

	75.	Sigidin YA et al., "Randomized, double-blind trial of anti-interferon-γ antibodies in rheumatoid arthritis", *Scand J Rheumatol* 2001; 30:203-207
	76.	Skurkovich S et al., "Randomized study of antibodies to IFN-γ and TNF-α in secondary progressive multiple sclerosis", in *Multiple Sclerosis* 2001; 7:277-284
	77.	Skurkovich SV et al., "Successful First-Time Use of Antibodies to Interferon- γ Alone and Combined with Antibodies to Tumor Necrosis Factor-α to Treat Rheumatic Diseases (Rheumatoid Arthritis, Systemic Lupus Erythematosus, Psoriatic Arthritis, Behcet's Syndrome)", *Int J Immunotherapy* 1998; XIV(1):23-32
	78.	Skurkovich SV and Eremkina EI, "The Probable Role of Interferon in Allergy", *Annals of Allergy* 1975; 35:356-360
	79.	Skurkovich S et al., "A Unifying Model of the Immunoregulatory Role of the Interferon System: can Interferon Produce Disease in Humans", *Clin Immunol Immunopathol* 1987; 43:362-373
	80.	Skurkovich SV et al., "Lymphocytes' Cytotoxicity Towards Cells of Human Lymphoblastoid Lines in Patients with Rheumatoid Arthritis and Systemic Lupus Erythematosus", *Annals of Allergy* 1977; 39:344-350
	81.	Skurkovich SV et al., "The Possible Participation of Interferon Inhibitor in the Formation of the Remission in Autoimmune diseases and Allergy (Hypersensitivity of Immediate Type)", *Med Hypoth* 1981; 7:1189-1191
	82.	Skurkovich S et al., "A Disturbance of Interferon Synthesis with the Hyperproduction of Unusual Kinds of Interferon can Trigger Autoimmune Disease and Play a Pathogenetic Role in AIDS: The Removal of These Interferons can be Therapeutic", *Med Hypoth* 1994; 42:27-35
	83.	Tang H et al., "The effexts of a monoclonal antibody to interferon- γ on experimental autoimmune thyroiditis (EAT): prevention of disease and decrease of EAT-specific T cells", *Eur J Immunol* 1993; 23:275-278
	84.	Thakur AB and Landolfi NF, "A potent neutralizing monoclonal antibody can discriminate amongst IFN γ from various primates with greater specificity than can the human IFNγ receptor complex", *Mol Immunol* 1999; 36:1107-1115
	85.	Vantrappen G et al., "Treatment of Crohn's Disease with Interferon A Prelimnary Clinical Trial", *Acta Clin Belg* 1980; 35(4):238-242
	86.	Verhoeyen M et al., "Reshaping Human Antibodies: Grafting an Antilysozyme Activity", *Science* 1988; 239:1534-1536

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

	87.	Whitman SC et al., "IFN-γ Deficiency Exerts Gender-Specific Effects on Atherogenesis in Apolipoprotein $E^{-/-}$ Mice", *J Interferon Cytokine Res* 2002; 22:661-670
	88.	Wiesenberg I et al., "Suppression and augmentation of rat adjuvant arthritis with monoclonal anti-interferon-gamma antibody", *Clin Exp Immunol* 1989; 78:245-249
	89.	Williams RO et al., "Increased limb involvement in murine collagen-induced arthritis following treatment with anti-interferon-gamma", *Clin Exp Immunol* 1993; 92:323-327
	90.	Wu AJ et al., "Modulation of MMP-2 (Gelatinase A) and MMP-9 (Gelantinase B) by Interferon-γ in a Human Salivary Gland Cell Line", *J Cell Physiol* 1997; 171:117-124
	91.	Yamamoto Y et al., "Characterization of Mouse Monoclonal Antibodies to Human Interferon-Gamma", *Microbiol Immunol* 1988; 32(4):339-350
	92.	Xu JL and Davis MM, "Difersity in the CDR3 Region of V_H Is Sufficient for Most Antibody Specificities", *Immunity* 2000; 13:37-45
	93.	Zhou X et al., "Hypercholesterolemia Is Associated with a T Helper (Th) 1/Th2 Switch of the Autoimmune Response in Atherosclerotic apo E-knockout Mice", *J Clin Invest* 1998; 101(8):1717-1725
	94.	GenBank Acc: BQ709764, GI:21848663, 7/11/2002
	95.	GenBank Acc: BG758749, GI:14069402, 5/14/2001
	96.	Acc: AL132795; GI:7159766, 8/1/2000
	97.	Acc: AL160175; GI:8217646, 7/5/2002
	98.	Acc: G47578; GI:4494186, 3/23/1999
	99.	Acc: G30544; GI:1594095, 10/5/1996
	100.	EMBL Locus Acc: CAD19912; GI:18041706, 1/1/2002
	101.	EMBL Locus Acc: CAC94629; GI:16116903, 11/15/01
	102.	EMBL Locus Acc: AL591130; GI:13990326, 12/19/2001
	103.	Acc: 1ID2_A; GI:14278664, 4/3/2001
	104.	Acc: AU048895; GI:6722066, 1/20/2000
	105.	Acc: AAU14464, 10/24/2001
	106.	TrEMBL Q9UL89, 5/13/2000

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	107.	Acc: A49047; GI:477471, 3/20/1998
	108.	Acc: AAA18271; GI:483388, 5/25/1994
	109.	Acc: AAR66339, 8/4/95
	110.	Acc: BAC01578; GI:21669107, 7/2/2002
	111.	Acc: BAC01595; GI:21669141, 7/2/2002
	112.	Acc: BAC01767; GI:21669485, 7/2/2002
	113.	Acc: AAB99113; GI:1499961, 1/28/1998
	114.	Acc: AAM23996; GI:20515725; 5/9/2002
	115.	Acc: C36006; GI:106413, 12/16/1998
	116.	Acc: AAU02582, 8/29/2001
	117.	Acc: AAG62966, 10/1/2001
	118.	Acc: AAW27555, 1/23/1998
	119.	Acc: AAR66339, 8/4/1995
	120.	Acc: AAR22575, 5/21/1992
	121.	GenBank Acc: BF917294; GI:12308765, 1/18/2001
	122.	GenBank Acc: BQ709764; GI:21848663, 7/11/2002
	123.	GenBank Acc: BG758749; GI:14069402, 5/14/2001
	124.	Acc: AB063950; GI:21669106, 7/2/2002
	125.	GenBank Acc: BG754240; GI:14064893, 5/14/2001
	126.	GenBank Acc: BM920470; GI:19370849, 3/11/2002
	127.	GenBank Acc: BG755575; GI:14066228, 5/14/2001
	128.	GenBank Acc: BF663762; GI:11937657, 12/18/2000
	129.	GenBank Acc: BM008329; GI:16522683, 10/29/2001
	130.	GenBank Acc: BM920470; GI:19370849, 3/11/2002

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